



77 Hartland Street, Suite 201
East Hartford, CT 06108
tel: (860) 529-7615
fax: (860) 290-7845

May 20, 2020

Ms. Donna Manuelli
Chief Financial Officer
New Jersey Turnpike Authority
P.O. Box 5042
Woodbridge, NJ 07095

Subject: New Jersey Turnpike System Traffic and Toll Revenue Forecast Assuming New Jersey Turnpike Interchange 19W Tolls, Revised Bus Toll Rates, Toll Increases, and Coronavirus Pandemic Impacts

Dear Ms. Manuelli:

As requested, CDM Smith is pleased to submit this letter report summarizing updated traffic and toll revenue forecasts for both the New Jersey Turnpike and Garden State Parkway assuming planned toll increases as well as the potential impacts of the current Coronavirus pandemic (COVID-19). New Jersey Turnpike Authority (NJTA) staff indicated that the first toll increase would occur on September 13, 2020. Coincident with this toll increase, NJTA will begin tolling the Interchange 19W ramps on the Turnpike as an E-ZPass only facility. NJTA will also modify the current bus toll rate schedule to be compliant with Fixing America's Surface Transportation (FAST) Act legislation. Subsequent to the September 13, 2020 toll increase, annual toll rate increases would be implemented on or about January 1 of each year, beginning in 2022.

CDM Smith's most recent traffic and revenue forecasts were developed as part of the September 21, 2018 New Jersey Turnpike System Traffic and Revenue Forecast Study. CDM Smith tracks the performance of actual monthly traffic and revenue compared to forecasted values. Through the end of February 2020, total actual toll revenue, for the Turnpike and Parkway combined, has slightly exceeded CDM Smith's estimates by 1.1%. As such, the September 2018 traffic and revenue forecasts were considered to remain valid as the Base Case forecasts from which to layer impacts on. This letter report will show the projected traffic and toll revenue impacts of Interchange 19W tolling, FAST Act bus toll changes, scheduled toll increases, and COVID-19 to the 2018 Base Case forecast.

Historical Annual Traffic and Revenue Trends

For background, long-term annual trends (1990 through 2019) are provided for the Turnpike and Parkway in **Table 1** and **Table 2** for toll transactions and toll revenue, respectively. All toll increases that have occurred since 1990 are noted in these two tables. The most recent was in January 2012 when Turnpike tolls increased by 53% and Parkway tolls increased by 50%. Over the last five years (2014-2019), total Turnpike toll transactions have grown by an average of 2.9% annually, with toll revenue increasing by an average of 2.5% per year over the same period.





Ms. Donna Manuelli
 May 20, 2020
 Page 2

Table 1
Annual Toll Transaction Trends
 All Values In Thousands

Calendar Year	New Jersey Turnpike						Garden State Parkway		Total System		
	Percent Change Over Prior		Percent Change Over Prior		Total	Percent Change Over Prior		Percent Change Over Prior			
	Cars	Commercial Vehicles	Cars	Commercial Vehicles		All Vehicles	Prior Year	All Vehicles	Prior Year		
	Year	Year	Year	Year	Year	Year	Year	Year			
1990		171,993		25,574		197,167		na		na	
1991	(1)	162,177	(5.7)	23,016	(10.0)	185,193	(6.1)	na		na	
1992		161,766	(0.3)	22,620	(1.7)	184,386	(0.4)	na		na	
1993		162,458	0.4	22,609	(0.0)	185,067	0.4	516,423		701,490	
1994		164,724	1.4	23,556	4.2	188,280	1.7	515,244	(0.2)	703,524	0.3
1995		166,734	1.2	23,641	0.4	190,375	1.1	529,420	2.8	719,795	2.3
1996		171,318	2.7	24,513	3.7	195,831	2.9	536,026	1.2	731,857	1.7
1997		177,268	3.5	25,584	4.4	202,852	3.6	557,697	4.0	760,549	3.9
1998		182,911	3.2	26,497	3.6	209,408	3.2	576,186	3.3	785,594	3.3
1999		185,556	1.4	27,595	4.1	213,151	1.8	583,348	1.2	796,499	1.4
2000	(2)	189,617	2.2	28,666	3.9	218,283	2.4	597,870	2.5	816,153	2.5
2001		199,318	5.1	29,453	2.7	228,771	4.8	609,551	2.0	838,322	2.7
2002		209,855	5.3	30,510	3.6	240,365	5.1	620,905	1.9	861,270	2.7
2003	(3)	208,472	(0.7)	31,151	2.1	239,623	(0.3)	628,287	1.2	867,910	0.8
2004		214,095	2.7	32,104	3.1	246,199	2.7	610,085	(2.9)	856,284	(1.3)
2005		214,687	0.3	32,701	1.9	247,388	0.5	502,575	(17.6)	749,963	(12.4)
2006		217,306	1.2	32,999	0.9	250,305	1.2	427,197	(15.0)	677,502	(9.7)
2007		216,625	(0.3)	33,163	0.5	249,788	(0.2)	417,464	(2.3)	667,252	(1.5)
2008	(4)	210,926	(2.6)	31,943	(3.7)	242,869	(2.8)	(4) 407,032	(2.5)	649,901	(2.6)
2009		205,366	(2.6)	28,737	(10.0)	234,103	(3.6)	396,269	(2.6)	630,372	(3.0)
2010		205,687	0.2	29,393	2.3	235,080	0.4	382,475	(3.5)	617,555	(2.0)
2011		203,627	(1.0)	29,601	0.7	233,228	(0.8)	377,891	(1.2)	611,119	(1.0)
2012	(5)	194,508	(4.5)	28,633	(3.3)	223,141	(4.3)	(5) 366,157	(3.1)	589,298	(3.6)
2013		195,208	0.4	29,277	2.2	224,485	0.6	368,915	0.8	593,400	0.7
2014		202,348	3.7	29,896	2.1	232,244	3.5	370,351	0.4	602,595	1.5
2015		215,358	6.4	31,238	4.5	246,596	6.2	379,282	2.4	625,878	3.9
2016		223,634	3.8	31,860	2.0	255,494	3.6	389,609	2.7	645,103	3.1
2017		227,979	1.9	32,686	2.6	260,665	2.0	392,895	0.8	653,560	1.3
2018		230,496	1.1	34,252	4.8	264,748	1.6	389,792	(0.8)	654,540	0.1
2019		233,454	1.3	34,318	0.2	267,772	1.1	386,752	(0.8)	654,524	0.0

Average Annual Percent Change:					
2014 - 2019 (5 years)		2.9		2.8	2.9
2009 - 2019 (10 years)		1.3		1.8	1.4
2004 - 2019 (15 years)		0.6		0.4	0.6
1999 - 2019 (20 years)		1.2		1.1	1.1
1994 - 2019 (25 years)		1.4		1.5	1.4

(1) Toll increase effective 3/17/1991. 70% PC Cash and 100% CV Cash Increase.

(2) Toll increase effective 9/30/2000. Peak and Off-Peak Rates adjusted by 20% for PC Cash, 13% for CV Cash, 8% CV ETC. PC ETC increased by 8% Peak.

(3) Toll increase effective 1/1/2003. Peak and Off-Peak rates adjusted by 17% for PC Cash, 13% for CV Cash, 8% CV ETC. PC ETC increased by 10% Peak and 5% Off-Peak.

(4) Toll increase effective 12/1/2008. All NJTP rates Increased 40%. GSP PC Cash, PC E-Zpass, CV Cash, and CV E-ZPass adjusted by 43%.

(5) Toll increase effective 1/1/2012. All NJTP rates adjusted 53%. All GSP rates adjusted by 50%.



Ms. Donna Manuelli
 May 20, 2020
 Page 3

Table 2
Annual Gross Toll Revenue Trends
All Values In Thousands

Calendar Year	New Jersey Turnpike						Garden State Parkway		Total System	
	Cars	Percent	Commercial Vehicles	Percent	Total	Percent	All Vehicles	Percent	All Vehicles	
		Change		Change		Change		Change		
		Over Prior Year		Over Prior Year		Over Prior Year		Over Prior Year		
1990	\$124,364		\$64,366		\$188,730		na		na	
1991	(1) 186,046	49.6	99,592	54.7	285,638	51.3	na		na	
1992	202,825	9.0	109,710	10.2	312,535	9.4	na		na	
1993	204,098	0.6	112,422	2.5	316,520	1.3	\$167,618		\$484,138	
1994	205,138	0.5	116,653	3.8	321,791	1.7	166,891	(0.4)	488,682	0.9
1995	209,739	2.2	116,564	(0.1)	326,303	1.4	171,528	2.8	497,831	1.9
1996	215,223	2.6	121,118	3.9	336,341	3.1	172,940	0.8	509,281	2.3
1997	223,575	3.9	126,862	4.7	350,437	4.2	178,923	3.5	529,360	3.9
1998	230,585	3.1	130,247	2.7	360,832	3.0	183,927	2.8	544,759	2.9
1999	234,949	1.9	134,548	3.3	369,497	2.4	185,782	1.0	555,279	1.9
2000	(2) 246,107	4.7	145,928	8.5	392,035	6.1	190,916	2.8	582,951	5.0
2001	280,108	13.8	153,656	5.3	433,764	10.6	196,085	2.7	629,849	8.0
2002	288,100	2.9	150,942	(1.8)	439,042	1.2	194,851	(0.6)	633,893	0.6
2003	(3) 321,357	11.5	168,833	11.9	490,190	11.6	202,655	4.0	692,845	9.3
2004	329,734	2.6	177,122	4.9	506,856	3.4	208,729	3.0	715,585	3.3
2005	327,228	(0.8)	180,783	2.1	508,011	0.2	203,824	(2.3)	711,835	(0.5)
2006	348,039	6.4	185,360	2.5	533,399	5.0	203,880	0.0	737,279	3.6
2007	345,249	(0.8)	196,042	5.8	541,291	1.5	204,629	0.4	745,920	1.2
2008	(4) 345,394	0.0	195,288	(0.4)	540,682	(0.1)	(4) 206,055	0.7	746,737	0.1
2009	449,897	30.3	224,738	15.1	674,635	24.8	277,783	34.8	952,418	27.5
2010	446,045	(0.9)	227,848	1.4	673,893	(0.1)	278,273	0.2	952,166	(0.0)
2011	447,434	0.3	225,716	(0.9)	673,150	(0.1)	275,730	(0.9)	948,880	(0.3)
2012	(5) 667,987	49.3	324,034	43.6	992,021	47.4	(5) 401,639	45.7	1,393,660	46.9
2013	672,828	0.7	333,892	3.0	1,006,720	1.5	407,044	1.3	1,413,764	1.4
2014	695,128	3.3	342,615	2.6	1,037,743	3.1	408,005	0.2	1,445,748	2.3
2015	745,008	7.2	361,259	5.4	1,106,267	6.6	416,862	2.2	1,523,129	5.4
2016	776,337	4.2	368,220	1.9	1,144,557	3.5	426,104	2.2	1,570,661	3.1
2017	800,478	3.1	351,260	(4.6)	1,151,738	0.6	428,157	0.5	1,579,895	0.6
2018	808,958	1.1	370,364	5.4	1,179,322	2.4	433,003	1.1	1,612,325	2.1
2019	816,271	0.9	360,205	(2.7)	1,176,476	(0.2)	435,792	0.6	1,612,268	0.0

Average Annual Percent Change:

2014 - 2019 (5 years)	3.3	1.0	2.5	1.3	2.2
2009 - 2019 (10 years)	6.1	4.8	5.7	4.6	5.4
2004 - 2019 (15 years)	6.2	4.8	5.8	5.0	5.6
1999 - 2019 (20 years)	6.4	5.0	6.0	4.4	5.5
1994 - 2019 (25 years)	5.7	4.6	5.3	3.9	4.9

(1) Toll increase effective 3/17/1991. 70% PC Cash and 100% CV Cash Increase.

(2) Toll increase effective 9/30/2000. Peak and Off-Peak Rates adjusted by 20% for PC Cash, 13% for CV Cash, 8% CV ETC. PC ETC increased by 8% Peak.

(3) Toll increase effective 1/1/2003. Peak and Off-Peak rates adjusted by 17% for PC Cash, 13% for CV Cash, 8% CV ETC. PC ETC increased by 10% Peak and 5% Off-Peak.

(4) Toll increase effective 12/1/2008. All NJTP rates Increased 40%. GSP PC Cash, PC E-Zpass, CV Cash, and CV E-ZPass adjusted by 43%.

(5) Toll increase effective 1/1/2012. All NJTP rates adjusted 53%. All GSP rates adjusted by 50%.

Source: NJTA



Ms. Donna Manuelli
May 20, 2020
Page 4

The Parkway has exhibited lower growth compared to the Turnpike. Over the last five years (2014-2019), average annual toll transactions have increased by 0.9%, with toll revenue growing by an average of 1.3% annually. It is difficult to assess true traffic growth on the Parkway since many of the two-way toll collection barriers have been converted to one-way toll collection. This has been occurring since 2004, with the most recent one-way conversion occurring in 2018. When a conversion occurs, toll transactions are effectively cut in half, though the toll rates are doubled in the new single-toll direction.

Collected, Uncollected, and Total Potential Base Case Toll Revenue

CDM Smith's toll revenue forecasts from the September 2018 Traffic and Revenue Study only estimated expected toll revenue that NJTA would actually collect on the Turnpike and Parkway. In fact, there are transactions that occur on both toll facilities for which toll revenue is not collected. This may include, but not be limited to, E-ZPass accounts with insufficient funds, toll violations, etc. NJTA tracks this activity in order to identify alternative means to recoup this uncollected toll revenue.

Table 3 identifies CDM Smith's estimated annual collected toll revenue on the Turnpike and the Parkway, along with estimates of annual uncollected toll revenue, and finally, the total toll revenue potential on both facilities, i.e., the sum of collected and uncollected toll revenue. The 2019 values shown for uncollected toll revenue are actual values provided by NJTA. Growth in uncollected toll revenue is assumed to increase at the same annual rate as collected toll revenue over the forecast period. No toll increases are assumed in the Base Case traffic and toll revenue figures shown in Table 3. All following tables will include CDM Smith's estimated Base Case toll transaction values from our September 2018 Traffic and Revenue Study. All Base Case toll revenues used in this analysis are based on the total collected plus uncollected toll revenue values shown in Table 3 (Base Case Toll Revenue Potential).

New Traffic and Toll Revenue Forecast Assumptions

As noted above, there are several variables that have changed, or will change, that will result in divergences from CDM Smith's current Base Case traffic and toll revenue forecasts (as developed in the September 2018 Traffic and Revenue Study). These include the following:

Tolling Interchange 19W Ramps – The current system design allows Turnpike motorists utilizing Interchange 19W, traveling to and from the north, toll-free use of the ramps during the hours of scheduled events at the Meadowlands sports and entertainment complex. It is proposed to open the interchange for use at all times and to add tolls to the ramps. CDM Smith developed estimated traffic and toll revenue associated with E-ZPass only tolling of these ramps. These estimates were provided to NJTA staff in an August 2018 Letter Report. The decision to toll the Interchange 19W ramps was not made at the time of CDM Smith's September 2018 Traffic and Revenue Study, and so are not currently included in the Base Case forecasts.



Ms. Donna Manuelli
 May 20, 2020
 Page 5

Table 3
Base Case Collected Toll Revenue, Estimated Uncollected Toll Revenue
And Total Estimated Potential Toll Revenue

All Values in Thousands

Calendar Year	Base Case Collected Toll Revenue (1)			Uncollected Toll Revenue (2)			Base Case Toll Revenue Potential (3)		
	Turnpike	Parkway	Total	Turnpike	Parkway	Total	Turnpike	Parkway	Total
2019	\$1,171,737	\$434,163	\$1,605,900	\$42,330	\$8,111	\$50,441	\$1,214,067	\$442,274	\$1,656,341
2020	1,192,889	440,409	1,633,298	43,094	8,228	51,322	1,235,983	448,637	1,684,620
2021	1,209,177	444,357	1,653,534	43,683	8,302	51,985	1,252,860	452,659	1,705,519
2022	1,228,761	449,412	1,678,173	44,390	8,396	52,786	1,273,151	457,808	1,730,959
2023	1,248,638	454,480	1,703,118	45,108	8,491	53,599	1,293,746	462,971	1,756,717
2024	1,271,835	460,722	1,732,557	45,946	8,608	54,554	1,317,781	469,330	1,787,111
2025	1,288,854	464,661	1,753,515	46,561	8,681	55,242	1,335,415	473,342	1,808,757
2026	1,309,290	469,771	1,779,061	47,299	8,777	56,076	1,356,589	478,548	1,835,137
2027	1,330,049	474,937	1,804,986	48,049	8,873	56,922	1,378,098	483,810	1,861,908
2028	1,354,516	481,360	1,835,876	48,933	8,993	57,926	1,403,449	490,353	1,893,802
2029	1,370,348	485,440	1,855,788	49,505	9,069	58,574	1,419,853	494,509	1,914,362
2030	1,389,836	489,554	1,879,390	50,209	9,146	59,355	1,440,045	498,700	1,938,745
2031	1,399,722	491,628	1,891,350	50,566	9,185	59,751	1,450,288	500,813	1,951,101
2032	1,413,203	494,946	1,908,149	51,053	9,247	60,300	1,464,256	504,193	1,968,449
2033	1,419,708	495,804	1,915,512	51,288	9,263	60,551	1,470,996	505,067	1,976,063
2034	1,429,810	497,905	1,927,715	51,653	9,302	60,955	1,481,463	507,207	1,988,670
2035	1,439,986	500,015	1,940,001	52,021	9,342	61,363	1,492,007	509,357	2,001,364
2036	1,448,723	502,327	1,951,050	52,337	9,385	61,722	1,501,060	511,712	2,012,772
2037	1,450,253	502,136	1,952,389	52,392	9,381	61,773	1,502,645	511,517	2,014,162
2038	1,455,415	503,200	1,958,615	52,578	9,401	61,979	1,507,993	512,601	2,020,594
2039	1,460,596	504,266	1,964,862	52,766	9,421	62,187	1,513,362	513,687	2,027,049

- (1) Base Case values are from CDM Smith's September 21, 2018 New Jersey Turnpike System Traffic and Revenue Forecast Study. Forecasts at that time were developed through 2028. For this analysis, forecasts from 2029 through 2039 were added to coincide with NJTA's Capital Improvement Program schedule. Uncollected toll revenue is not included in these estimates.
- (2) NJTA tracks traffic on the Turnpike and Parkway for which they do not collect revenue; this is referred to as "Uncollected Revenue". Data shown here for 2019 is actual, based on NJTA reporting. Uncollected revenue on the Turnpike amounted to 3.61% of total Base Case toll revenue, while Uncollected Revenue on the Parkway amounted to 1.87% of total Base Case toll revenue. The forecasted Uncollected Revenue for the 2020 through 2039 period was assumed to represent the same percentage losses as in 2019.
- (3) Base Case Revenue Potential represents the sum of collected plus uncollected toll revenue.



Ms. Donna Manuelli
May 20, 2020
Page 6

Bus Toll Schedule Changes – The Federal FAST Act requires state, regional, and local tolling authorities to set toll rates for the buses on an equitable basis. NJTA staff asked that CDM Smith evaluate a consistent tolling structure between the Turnpike and Parkway that would result in a net toll revenue neutral structure. Our analysis indicates that a 40% discount for bus classes B2 and B3, versus the comparable Turnpike and Parkway rates for two-axle (C2) and three-axle (C3) commercial vehicles, would be revenue neutral. As will be shown below, the 40% bus discount rate will result in slightly more bus revenue for the Turnpike, but an equal loss of revenue on the Parkway.

Toll Increases – As noted above, the last toll increase occurred in January 2012 (53% on the Turnpike and 50% on the Parkway). The September 2018 Traffic and Revenue Study forecasts developed by CDM Smith did not assume any future year toll increases. To support the next Capital Program, NJTA proposes implementing a 36% toll increase on the Turnpike and a 27% toll increase on the Parkway. This increase is assumed to occur on September 13, 2020. After that, instead of implementing larger (30% to 50%) toll increases every ten years or so, the NJTA proposes implementing smaller annual 3% toll adjustments beginning in January 2022. The initial 2020 toll increase and the annual 3% toll increases beginning in January 2022 have been factored into this analysis.

COVID-19 Impacts – Beginning in early March 2020, the impacts of the stay-at-home orders and social distancing guidelines from state and local governments began to have increasingly negative impacts on Turnpike and Parkway usage. NJTA staff have provided CDM Smith with daily traffic and revenue figures for both facilities. The ultimate magnitude and duration of the decrease in traffic levels are still unclear at this time. However, based on the data we currently have, it appears the decrease in passenger car traffic on both the Turnpike and Parkway has bottomed out in mid-April 2020. Commercial vehicle traffic is still showing a downward trend. In this analysis, we have assumed an early May 2020 bottoming out for commercial vehicle traffic.

As far as the duration of the traffic impacts, we have assumed that, beyond this year, traffic volumes will continue to be impacted through 2025 as local, state, and federal economic activity recovers from what is assumed to be a steep economic recession brought on by this unprecedented situation, high unemployment, and lingering other structural changes of how we live and work going forward. We have assumed that by 2026 traffic levels will return to non-COVID-19 forecasts and any negative impacts will have been recovered.

In addition to the negative impact of decreased travel due to COVID-19, NJTA also suspended cash toll collection at all locations beginning March 24, 2020. This will result in some level of additional revenue loss for trips not using E-ZPass. Revenue losses, or “leakage”, typically amount



Ms. Donna Manuelli
May 20, 2020
Page 7

to about 50% of revenue that would otherwise have been collected from cash customers, who now will have an image taken of their license plate and sent an invoice. For purposes of this analysis, CDM Smith assumes cash collection resumes by mid-June 2020. CDM Smith has applied this estimated lost revenue into the COVID-19 forecasted impacts.

Base Case and Adjusted Traffic and Toll Revenue Estimates

Traffic and toll revenue estimates for the Base Case, as well as for the new adjusted toll transactions and toll revenue, are shown in **Tables 4, 5, and 6** for the Turnpike, Parkway, and Total System, respectively. These three tables all reflect the scenario where the first toll increase is implemented on September 13, 2020. These tables also identify the estimated impacts associated with each of the variables described above, including: Interchange 19W tolling, FAST Act bus toll changes, scheduled toll increases, and COVID-19.

Turnpike Base Case and Adjusted Traffic and Toll Revenue – Table 4 shows all estimated traffic and revenue values for the New Jersey Turnpike. As shown, the Interchange 19W tolling impacts are estimated to add just over 5.0 million annual transactions to the Turnpike beginning with the first full year of operation in 2021. The resulting annual toll revenue generated by these newly tolled ramps increases from \$2.6 million in 2020 to \$9.1 million by 2039. The FAST Act bus toll changes are not expected to have any impact on bus volumes but would add about \$0.7 million in annual revenue beginning in 2021. These impacts assume a start date on September 13, 2020 for both the Interchange 19W tolling and the FAST Act bus toll schedule change.

A 36% toll increase is also assumed on September 13, 2020, with annual 3% increases assumed beginning on or about January 1, 2022. The annual 3% toll adjustment is assumed throughout the forecast period. Toll diversion resulting from the toll increases range from just over 13.0 million in 2021 to almost 71.1 million by 2039. The resulting additional annual toll revenue from the toll increases ranges from about \$373.9 million in 2021 (the first full year of the increase) to nearly \$1,265.2 million by 2039.

The next set of traffic and revenue values shown in this table relate to the estimated impact of COVID-19. As noted above, CDM Smith is working with NJTA staff to gather and review daily traffic and toll revenue and to estimate the depth and duration of the impacts this might have on overall travel demand. We will continue to monitor actual traffic and revenue activity and will have better insight into the ultimate impacts over the next several weeks and months. Based on current data and trends, we estimate a loss of about 71.3 million annual Turnpike toll transactions in 2020. As shown, this is estimated to gradually decline to about 0.1 million by 2025. We assume no negative impacts beyond 2025. Annual lost toll revenue is estimated to be nearly \$287.1 million in 2020, then gradually lessen to about \$1.2 million by 2025.



Ms. Donna Manuelli
 May 20, 2020
 Page 8

Table 4
Estimated New Jersey Turnpike Base Case and Adjusted Annual Toll Transactions and Revenue
Assuming Toll Increases Beginning in September 2020

All Values in Thousands

Calendar Year	Base Case Transactions (1)	Estimated Transaction Impacts on Base Case					Total Adjusted Transactions
		Interchange 19W Tolling Impact (2)	FAST Act Bus Tolling Impact (3)	Toll Increase Impact (4)	COVID-19 Impact (5)	Total Impacts	
2019	261,108	0	0	0	0	0	261,108
2020	265,837	1,506	0	(4,006)	(71,339)	(73,839)	191,998
2021	269,525	5,044	0	(13,015)	(11,428)	(19,399)	250,126
2022	273,951	5,072	0	(14,912)	(5,714)	(15,554)	258,397
2023	278,431	5,095	0	(16,955)	(2,286)	(14,146)	264,285
2024	283,656	5,117	0	(19,196)	(686)	(14,765)	268,891
2025	287,505	5,139	0	(21,502)	(137)	(16,500)	271,005
2026	292,097	5,156	0	(24,022)	0	(18,866)	273,231
2027	296,762	5,173	0	(27,044)	0	(21,871)	274,891
2028	302,256	5,190	0	(30,040)	0	(24,850)	277,406
2029	306,113	5,208	0	(33,072)	0	(27,864)	278,249
2030	310,795	5,225	0	(36,390)	0	(31,165)	279,630
2031	313,172	5,233	0	(39,635)	0	(34,402)	278,770
2032	316,357	5,255	0	(43,654)	0	(38,399)	277,958
2033	317,982	5,251	0	(47,200)	0	(41,949)	276,033
2034	320,414	5,259	0	(51,057)	0	(45,798)	274,616
2035	322,866	5,268	0	(55,127)	0	(49,859)	273,007
2036	324,911	5,283	0	(59,118)	0	(53,835)	271,076
2037	325,341	5,272	0	(62,772)	0	(57,500)	267,841
2038	326,586	5,274	0	(66,726)	0	(61,452)	265,134
2039	327,836	5,276	0	(71,080)	0	(65,804)	262,032

Calendar Year	Base Case Revenue (1)	Estimated Toll Revenue Impacts on Base Case					Total Adjusted Toll Revenue
		Interchange 19W Tolling Impact (2)	FAST Act Bus Tolling Impact (3)	Toll Increase Impact (4)	COVID-19 Impact (5)	Total Impacts	
2019	\$1,214,067	\$0	\$0	\$0	\$0	\$0	\$1,214,067
2020	1,235,983	2,605	219	110,859	(287,082)	(173,399)	1,062,584
2021	1,252,860	8,734	730	373,870	(97,106)	286,228	1,539,088
2022	1,273,151	8,782	730	418,859	(48,553)	379,818	1,652,969
2023	1,293,746	8,820	730	465,705	(19,421)	455,834	1,749,580
2024	1,317,781	8,859	730	515,426	(5,826)	519,189	1,836,970
2025	1,335,415	8,895	730	564,165	(1,165)	572,625	1,908,040
2026	1,356,589	8,924	730	615,741	0	625,395	1,981,984
2027	1,378,098	8,953	730	666,673	0	676,356	2,054,454
2028	1,403,449	8,984	730	722,820	0	732,534	2,135,983
2029	1,419,853	9,014	730	775,538	0	785,282	2,205,135
2030	1,440,045	9,044	730	831,194	0	840,968	2,281,013
2031	1,450,288	9,060	730	881,713	0	891,503	2,341,791
2032	1,464,256	9,075	730	930,874	0	940,679	2,404,935
2033	1,470,996	9,090	730	978,863	0	988,683	2,459,679
2034	1,481,463	9,105	730	1,028,966	0	1,038,801	2,520,264
2035	1,492,007	9,121	730	1,078,685	0	1,088,536	2,580,543
2036	1,501,060	9,125	730	1,128,317	0	1,138,172	2,639,232
2037	1,502,645	9,128	730	1,173,660	0	1,183,518	2,686,163
2038	1,507,993	9,132	730	1,221,127	0	1,230,989	2,738,982
2039	1,513,362	9,136	730	1,265,182	0	1,275,048	2,788,410

- (1) Base Case Revenue values here reflect the Potential Base Case Revenue as shown in Table 3; these include both collected and uncollected toll revenue.
- (2) E-ZPass only gantries assumed to be operational at the Turnpike's Interchange 19W ramps beginning on September 13, 2020.
- (3) In compliance with FAST Act legislation, bus toll rates on both the Turnpike and Parkway will be set at a 40% discount to the comparable commercial vehicle toll rates with the same number of axles. Bus rate changes would begin on September 13, 2020.
- (4) On September 13, 2020 a 36% toll increase on the Turnpike and a 27% toll increase on the Parkway are assumed. On or about January 1 of each year, beginning in 2022, a 3% toll increase is assumed to be implemented throughout the forecast period.
- (5) These impacts represent the estimated reduction in travel demand over the forecast period as a result of the COVID-19 pandemic. In addition, due to the COVID-19 pandemic, NJTA has temporarily implemented cashless, non-stop, tolling at all locations. The date when cash toll collection will again be possible is not known at this time, but assumed to be on June 14, 2020 for purposes of this analysis. The COVID-19 impacts shown here represent the potential loss of toll revenue for both the temporary video capture and billing of former cash customers and the reduction in total travel demand.



Ms. Donna Manuelli
 May 20, 2020
 Page 9

Table 5
Estimated Garden State Parkway Base Case and Adjusted Annual Toll Transactions and Revenue
Assuming Toll Increases Beginning in September 2020

All Values in Thousands

Calendar Year	Base Case Transactions (1)	Estimated Transaction Impacts on Base Case					Total Adjusted Transactions
		Interchange 19W Tolling Impact (2)	FAST Act Bus Tolling Impact (3)	Toll Increase Impact (4)	COVID-19 Impact (5)	Total Impacts	
2019	384,049	0	0	0	0	0	384,049
2020	389,421	0	0	(3,550)	(97,113)	(100,663)	288,758
2021	392,783	0	0	(11,623)	(19,359)	(30,982)	361,801
2022	397,121	0	0	(13,728)	(9,680)	(23,408)	373,714
2023	401,494	0	0	(16,010)	(3,872)	(19,882)	381,612
2024	406,902	0	0	(18,524)	(1,162)	(19,686)	387,216
2025	410,300	0	0	(21,142)	(232)	(21,374)	388,926
2026	414,731	0	0	(24,523)	0	(24,523)	390,208
2027	419,209	0	0	(27,669)	0	(27,669)	391,540
2028	424,795	0	0	(31,128)	0	(31,128)	393,667
2029	428,311	0	0	(34,680)	0	(34,680)	393,631
2030	431,857	0	0	(38,137)	0	(38,137)	393,720
2031	433,644	0	0	(41,621)	0	(41,621)	392,023
2032	436,527	0	0	(45,396)	0	(45,396)	391,131
2033	437,241	0	0	(49,131)	0	(49,131)	388,110
2034	439,050	0	0	(53,703)	0	(53,703)	385,347
2035	440,867	0	0	(57,982)	0	(57,982)	382,885
2036	442,884	0	0	(62,498)	0	(62,498)	380,386
2037	442,694	0	0	(66,904)	0	(66,904)	375,790
2038	443,610	0	0	(71,674)	0	(71,674)	371,936
2039	444,528	0	0	(77,384)	0	(77,384)	367,144

Calendar Year	Base Case Revenue (1)	Estimated Toll Revenue Impacts on Base Case					Total Adjusted Toll Revenue
		Interchange 19W Tolling Impact (2)	FAST Act Bus Tolling Impact (3)	Toll Increase Impact (4)	COVID-19 Impact (5)	Total Impacts	
2019	\$442,274	\$0	\$0	\$0	\$0	\$0	\$442,274
2020	448,637	0	(219)	30,091	(118,205)	(88,333)	360,304
2021	452,659	0	(730)	105,033	(28,285)	76,018	528,677
2022	457,808	0	(730)	120,153	(14,142)	105,281	563,089
2023	462,971	0	(730)	135,718	(5,657)	129,331	592,302
2024	469,330	0	(730)	152,097	(1,697)	149,670	619,000
2025	473,342	0	(730)	168,124	(339)	167,055	640,397
2026	478,548	0	(730)	184,061	0	183,331	661,879
2027	483,810	0	(730)	201,129	0	200,399	684,209
2028	490,353	0	(730)	219,093	0	218,363	708,716
2029	494,509	0	(730)	236,283	0	235,553	730,062
2030	498,700	0	(730)	254,320	0	253,590	752,290
2031	500,813	0	(730)	271,517	0	270,787	771,600
2032	504,193	0	(730)	289,562	0	288,832	793,025
2033	505,067	0	(730)	306,253	0	305,523	810,590
2034	507,207	0	(730)	322,573	0	321,843	829,050
2035	509,357	0	(730)	339,929	0	339,199	848,556
2036	511,712	0	(730)	357,372	0	356,642	868,354
2037	511,517	0	(730)	372,854	0	372,124	883,641
2038	512,601	0	(730)	388,992	0	388,262	900,863
2039	513,687	0	(730)	403,025	0	402,295	915,982

- (1) Base Case Revenue values here reflect the Potential Base Case Revenue as shown in Table 3; these include both collected and uncollected toll revenue.
- (2) E-ZPass only gantries assumed to be operational at the Turnpike's Interchange 19W ramps beginning on September 13, 2020.
- (3) In compliance with FAST Act legislation, bus toll rates on both the Turnpike and Parkway will be set at a 40% discount to the comparable commercial vehicle toll rates with the same number of axles. Bus rate changes would begin on September 13, 2020.
- (4) On September 13, 2020 a 36% toll increase on the Turnpike and a 27% toll increase on the Parkway are assumed. On or about January 1 of each year, beginning in 2022, a 3% toll increase is assumed to be implemented throughout the forecast period.
- (5) These impacts represent the estimated reduction in travel demand over the forecast period as a result of the COVID-19 pandemic. In addition, due to the COVID-19 pandemic, NJTA has temporarily implemented cashless, non-stop, tolling at all locations. The date when cash toll collection will again be possible is not known at this time, but assumed to be on June 14, 2020 for purposes of this analysis. The COVID-19 impacts shown here represent the potential loss of toll revenue for both the temporary video capture and billing of former cash customers and the reduction in total travel demand.



Ms. Donna Manuelli
 May 20, 2020
 Page 10

Table 6
Estimated Turnpike and Garden State Parkway Base Case and Adjusted Annual Toll Transactions and Revenue
Assuming Toll Increases Beginning in September 2020

All Values in Thousands

Calendar Year	Base Case Transactions (1)	Estimated Transaction Impacts on Base Case					Total Adjusted Transactions
		Interchange 19W Tolling Impact (2)	FAST Act Bus Tolling Impact (3)	Toll Increase Impact (4)	COVID-19 Impact (5)	Total Impacts	
2019	645,157	0	0	0	0	0	645,157
2020	655,258	1,506	0	(7,556)	(168,452)	(174,502)	480,756
2021	662,308	5,044	0	(24,638)	(30,787)	(50,381)	611,927
2022	671,072	5,072	0	(28,640)	(15,394)	(38,962)	632,111
2023	679,925	5,095	0	(32,965)	(6,157)	(34,027)	645,898
2024	690,558	5,117	0	(37,720)	(1,847)	(34,450)	656,108
2025	697,805	5,139	0	(42,644)	(369)	(37,874)	659,931
2026	706,828	5,156	0	(48,545)	0	(43,389)	663,439
2027	715,971	5,173	0	(54,713)	0	(49,540)	666,431
2028	727,051	5,190	0	(61,168)	0	(55,978)	671,073
2029	734,424	5,208	0	(67,752)	0	(62,544)	671,880
2030	742,652	5,225	0	(74,527)	0	(69,302)	673,350
2031	746,816	5,233	0	(81,256)	0	(76,023)	670,793
2032	752,884	5,255	0	(89,050)	0	(83,795)	669,089
2033	755,223	5,251	0	(96,331)	0	(91,080)	664,143
2034	759,464	5,259	0	(104,760)	0	(99,501)	659,963
2035	763,733	5,268	0	(113,109)	0	(107,841)	655,892
2036	767,795	5,283	0	(121,616)	0	(116,333)	651,462
2037	768,035	5,272	0	(129,676)	0	(124,404)	643,631
2038	770,196	5,274	0	(138,400)	0	(133,126)	637,070
2039	772,364	5,276	0	(148,464)	0	(143,188)	629,176

Calendar Year	Base Case Revenue (1)	Estimated Toll Revenue Impacts on Base Case					Total Adjusted Toll Revenue
		Interchange 19W Tolling Impact (2)	FAST Act Bus Tolling Impact (3)	Toll Increase Impact (4)	COVID-19 Impact (5)	Total Impacts	
2019	\$1,656,341	\$0	\$0	\$0	\$0	\$0	\$1,656,341
2020	1,684,620	2,605	0	140,950	(405,286)	(261,731)	1,422,889
2021	1,705,519	8,734	0	478,903	(125,390)	362,247	2,067,766
2022	1,730,959	8,782	0	539,012	(62,695)	485,099	2,216,058
2023	1,756,717	8,820	0	601,423	(25,078)	585,165	2,341,882
2024	1,787,111	8,859	0	667,523	(7,523)	668,859	2,455,970
2025	1,808,757	8,895	0	732,289	(1,505)	739,679	2,548,436
2026	1,835,137	8,924	0	799,802	0	808,726	2,643,863
2027	1,861,908	8,953	0	867,802	0	876,755	2,738,663
2028	1,893,802	8,984	0	941,913	0	950,897	2,844,699
2029	1,914,362	9,014	0	1,011,821	0	1,020,835	2,935,197
2030	1,938,745	9,044	0	1,085,514	0	1,094,558	3,033,303
2031	1,951,101	9,060	0	1,153,230	0	1,162,290	3,113,391
2032	1,968,449	9,075	0	1,220,436	0	1,229,511	3,197,960
2033	1,976,063	9,090	0	1,285,116	0	1,294,206	3,270,269
2034	1,988,670	9,105	0	1,351,539	0	1,360,644	3,349,314
2035	2,001,364	9,121	0	1,418,614	0	1,427,735	3,429,099
2036	2,012,772	9,125	0	1,485,689	0	1,494,814	3,507,586
2037	2,014,162	9,128	0	1,546,514	0	1,555,642	3,569,804
2038	2,020,594	9,132	0	1,610,119	0	1,619,251	3,639,845
2039	2,027,049	9,136	0	1,668,207	0	1,677,343	3,704,392

- (1) Base Case Revenue values here reflect the Potential Base Case Revenue as shown in Table 3; these include both collected and uncollected toll revenue.
- (2) E-ZPass only gantries assumed to be operational at the Turnpike's Interchange 19W ramps beginning on September 13, 2020.
- (3) In compliance with FAST Act legislation, bus toll rates on both the Turnpike and Parkway will be set at a 40% discount to the comparable commercial vehicle toll rates with the same number of axles. Bus rate changes would begin on September 13, 2020.
- (4) On September 13, 2020 a 36% toll increase on the Turnpike and a 27% toll increase on the Parkway are assumed. On or about January 1 of each year, beginning in 2022, a 3% toll increase is assumed to be implemented throughout the forecast period.
- (5) These impacts represent the estimated reduction in travel demand over the forecast period as a result of the COVID-19 pandemic. In addition, due to the COVID-19 pandemic, NJTA has temporarily implemented cashless, non-stop, tolling at all locations. The date when cash toll collection will again be possible is not known at this time, but assumed to be on June 14, 2020 for purposes of this analysis. The COVID-19 impacts shown here represent the potential loss of toll revenue for both the temporary video capture and billing of former cash customers and the reduction in total travel demand.



Ms. Donna Manuelli
May 20, 2020
Page 11

The final column in this table shows the resulting total adjusted toll transactions and revenue after accounting for each of the estimated impacts on Base Case values. As shown, total adjusted transactions are estimated to decrease from 261.1 million in 2019 to 192.0 million in 2020 due to the negative impacts related to COVID-19. Transactions are then forecast to increase through 2030, at which point they peak at 279.6 million. After that they begin to slowly decline due to the continued negative effect of the annual 3% toll increases, with an estimated 262.0 million transactions forecast in 2039. Turnpike total adjusted annual toll revenue increases from almost \$1,214.1 million in 2019 to about \$2,788.4 million by 2039.

Parkway Base Case and Adjusted Traffic and Toll Revenue – Table 5 shows all estimated traffic and revenue values for the Garden State Parkway. There are no Interchange 19W impacts on the Parkway since this is a Turnpike interchange. The FAST Act bus toll changes are not expected to have any impact on bus volumes but would reduce Parkway revenue by about \$0.7 million beginning in 2021.

A 27% toll increase is assumed on September 13, 2020, with annual 3% increases assumed beginning on or about January 1, 2022. The annual 3% toll adjustment is assumed throughout the forecast period. Toll diversions resulting from the toll increases grow from just over 11.6 million in 2021 to almost 77.4 million by 2039. The resulting additional annual toll revenue from the toll increases grows from about \$105.0 million in 2021 (the first full year of the increase) to just over \$403.0 million by 2039.

The next set of traffic and revenue values shown in this table relate to the estimated impact of COVID-19. As with data for the Turnpike, we will continue to monitor actual traffic and revenue activity and will have better insight into the ultimate impacts over the next several weeks and months. Based on current data and trends, we estimate a loss of about 97.1 million annual Parkway toll transactions in 2020. As shown, this is estimated to gradually decline to about 0.2 million by 2025. We assume no negative impacts beyond 2025. Annual toll revenue losses due to COVID-19 are estimated to be \$118.2 million in 2020, then gradually decrease to about \$0.3 million by 2025.

The final column in this table shows the resulting total adjusted toll transactions and revenue after accounting for each of the estimated impacts on Base Case values. Like with the Turnpike, total adjusted transactions are estimated to significantly decrease between 2019 (384.0 million) and 2020 (288.8 million) before growing to a peak in 2030 (393.7 million). After that, they begin to slowly decline due to the continued negative effect of the annual 3% toll increases, with an estimated 367.1 million transactions forecast in 2039. Other than a drop between 2019 and 2020 due to COVID-19 impacts, Parkway total adjusted annual toll revenue continually increases during this period, from nearly \$442.3 million in 2019 to almost \$916.0 million by 2039.



Ms. Donna Manuelli
May 20, 2020
Page 12

Total System Base Case and Adjusted Traffic and Toll Revenue – Table 6 shows the combined effects of all impacts associated with the Turnpike and Parkway on Base Case traffic and toll revenue assuming the first toll increase on September 13, 2020. To put each of the individual impacts in perspective, **Table 7** shows the percent impacts each of these variables has on Total System traffic and toll revenue. From this, it is clear that the Interchange 19W ramp tolling and the FAST Act bus toll rate changes contribute relatively little to the new adjusted traffic and revenue values.

The most significant long-term impacts result from the proposed toll increases. As shown in Table 7, total annual Base Case toll transactions are reduced by 3.7% in 2021, the first full year of the toll increase. The impact of the annual 3% toll increase has an increasingly negative impact on traffic over time. By 2039, Total System Base Case toll transactions are lower by about 19.2%. Of course, the resulting toll increase impact on annual toll revenue is positive. The toll increases raise Base Case toll revenue by an estimated 28.1% in 2021. The compound effect of the annual 3% toll adjustments results in adjusted 2039 toll revenue being about 82.3% higher than in the Base Case.

Finally, the COVID-19 impacts are estimated to reduce Total System traffic and toll revenue by about 25.7% and 24.1%, respectively, for the full 2020 calendar year. The negative traffic and toll revenue impacts decrease over the following five years, such that both traffic and toll revenue are estimated to be lower by only about 0.1% in 2025.

The last column in Table 7 shows the total combined effect of each of these positive and negative impacts on Base Case traffic and toll revenue. Aside from 2020 and 2021, when the estimated COVID-19 impacts are the greatest, the total impacts (negative for transactions and positive for toll revenue) closely mirror those for the toll increase alone.

Table 8 provides a summary of the final adjusted annual traffic and toll revenue estimates for the Turnpike, Parkway, and for the Total System assuming the first toll increase occurs on September 13, 2020. These adjusted values are the same as the final adjusted transaction and toll revenue columns presented in Tables 4, 5, and 6. In addition, the final column in Table 8 shows the estimated annual traffic and toll revenue growth through 2039. These adjusted values now include all estimated impacts associated with Interchange 19W tolling, FAST Act bus toll changes, scheduled toll increases, and COVID-19.



Ms. Donna Manuelli
 May 20, 2020
 Page 13

Table 7
Estimated Percent Impacts on Total New Jersey Turnpike System
Assuming Toll Increases Beginning in September 2020

Estimated Transaction Percent Impacts on Base Case						
Calendar Year	Interchange 19W Tolling Impact (1)	FAST Act Bus Tolling Impact (2)	Toll Increase Impact (3)	COVID-19 Impact (4)	Total Impacts	
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2020	0.2	0.0	(1.2)	(25.7)	(26.6)	
2021	0.8	0.0	(3.7)	(4.6)	(7.6)	
2022	0.8	0.0	(4.3)	(2.3)	(5.8)	
2023	0.7	0.0	(4.8)	(0.9)	(5.0)	
2024	0.7	0.0	(5.5)	(0.3)	(5.0)	
2025	0.7	0.0	(6.1)	(0.1)	(5.4)	
2026	0.7	0.0	(6.9)	0.0	(6.1)	
2027	0.7	0.0	(7.6)	0.0	(6.9)	
2028	0.7	0.0	(8.4)	0.0	(7.7)	
2029	0.7	0.0	(9.2)	0.0	(8.5)	
2030	0.7	0.0	(10.0)	0.0	(9.3)	
2031	0.7	0.0	(10.9)	0.0	(10.2)	
2032	0.7	0.0	(11.8)	0.0	(11.1)	
2033	0.7	0.0	(12.8)	0.0	(12.1)	
2034	0.7	0.0	(13.8)	0.0	(13.1)	
2035	0.7	0.0	(14.8)	0.0	(14.1)	
2036	0.7	0.0	(15.8)	0.0	(15.2)	
2037	0.7	0.0	(16.9)	0.0	(16.2)	
2038	0.7	0.0	(18.0)	0.0	(17.3)	
2039	0.7	0.0	(19.2)	0.0	(18.5)	

Estimated Toll Revenue Percent Impacts on Base Case						
Calendar Year	Interchange 19W Tolling Impact (1)	FAST Act Bus Tolling Impact (2)	Toll Increase Impact (3)	COVID-19 Impact (4)	Total Impacts	
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2020	0.2	0.0	8.4	(24.1)	(15.5)	
2021	0.5	0.0	28.1	(7.4)	21.2	
2022	0.5	0.0	31.1	(3.6)	28.0	
2023	0.5	0.0	34.2	(1.4)	33.3	
2024	0.5	0.0	37.4	(0.4)	37.4	
2025	0.5	0.0	40.5	(0.1)	40.9	
2026	0.5	0.0	43.6	0.0	44.1	
2027	0.5	0.0	46.6	0.0	47.1	
2028	0.5	0.0	49.7	0.0	50.2	
2029	0.5	0.0	52.9	0.0	53.3	
2030	0.5	0.0	56.0	0.0	56.5	
2031	0.5	0.0	59.1	0.0	59.6	
2032	0.5	0.0	62.0	0.0	62.5	
2033	0.5	0.0	65.0	0.0	65.5	
2034	0.5	0.0	68.0	0.0	68.4	
2035	0.5	0.0	70.9	0.0	71.3	
2036	0.5	0.0	73.8	0.0	74.3	
2037	0.5	0.0	76.8	0.0	77.2	
2038	0.5	0.0	79.7	0.0	80.1	
2039	0.5	0.0	82.3	0.0	82.7	

(1) E-ZPass only gantries assumed to be operational at the Turnpike's Interchange 19W ramps beginning on September 13, 2020.
 (2) In compliance with FAST Act legislation, bus toll rates on both the Turnpike and Parkway will be set at a 40% discount to the comparable commercial vehicle toll rates with the same number of axles. Bus rate changes would begin on September 13, 2020.
 (3) On September 13, 2020 a 36% toll increase on the Turnpike and a 27% toll increase on the Parkway are assumed. On or about January 1 of each year, beginning in 2022, a 3% toll increase is assumed to be implemented throughout the forecast period.
 (4) These impacts represent the estimated reduction in travel demand over the forecast period as a result of the COVID-19 pandemic. In addition, due to the COVID-19 pandemic, NJTA has temporarily implemented cashless, non-stop, tolling at all locations. The date when cash toll collection will again be possible is not known at this time, but assumed to be on June 14, 2020 for purposes of this analysis. The COVID-19 impacts shown here represent the potential loss of toll revenue for both the temporary video capture and billing of former cash customers and the reduction in total travel demand.



Ms. Donna Manuelli
 May 20, 2020
 Page 14

Table 8
Adjusted Turnpike and Garden State Parkway
Annual Traffic and Toll Revenue

All Values in Thousands

Calendar Year	Annual Toll Transactions (1)			Annual % Change
	Turnpike	Parkway	Total	
2019	261,108	384,049	645,157	---
2020	191,998	288,758	480,756	(25.5)
2021	250,126	361,801	611,927	27.3
2022	258,397	373,714	632,111	3.3
2023	264,285	381,612	645,898	2.2
2024	268,891	387,216	656,108	1.6
2025	271,005	388,926	659,931	0.6
2026	273,231	390,208	663,439	0.5
2027	274,891	391,540	666,431	0.5
2028	277,406	393,667	671,073	0.7
2029	278,249	393,631	671,880	0.1
2030	279,630	393,720	673,350	0.2
2031	278,770	392,023	670,793	(0.4)
2032	277,958	391,131	669,089	(0.3)
2033	276,033	388,110	664,143	(0.7)
2034	274,616	385,347	659,963	(0.6)
2035	273,007	382,885	655,892	(0.6)
2036	271,076	380,386	651,462	(0.7)
2037	267,841	375,790	643,631	(1.2)
2038	265,134	371,936	637,070	(1.0)
2039	262,032	367,144	629,176	(1.2)

Calendar Year	Annual Toll Revenue (1)			Annual % Change
	Turnpike	Parkway	Total	
2019	\$1,214,067	\$442,274	\$1,656,341	---
2020	1,062,584	360,304	1,422,889	(14.1)
2021	1,539,088	528,677	2,067,766	45.3
2022	1,652,969	563,089	2,216,058	7.2
2023	1,749,580	592,302	2,341,882	5.7
2024	1,836,970	619,000	2,455,970	4.9
2025	1,908,040	640,397	2,548,436	3.8
2026	1,981,984	661,879	2,643,863	3.7
2027	2,054,454	684,209	2,738,663	3.6
2028	2,135,983	708,716	2,844,699	3.9
2029	2,205,135	730,062	2,935,197	3.2
2030	2,281,013	752,290	3,033,303	3.3
2031	2,341,791	771,600	3,113,391	2.6
2032	2,404,935	793,025	3,197,960	2.7
2033	2,459,679	810,590	3,270,269	2.3
2034	2,520,264	829,050	3,349,314	2.4
2035	2,580,543	848,556	3,429,099	2.4
2036	2,639,232	868,354	3,507,586	2.3
2037	2,686,163	883,641	3,569,804	1.8
2038	2,738,982	900,863	3,639,845	2.0
2039	2,788,410	915,982	3,704,392	1.8

(1) The adjusted traffic and revenue estimates shown here reflect the following:

1. E-ZPass only gantries assumed to be operational at the Turnpike's Interchange 19W ramps beginning on September 13, 2020.
2. In compliance with FAST Act legislation, bus toll rates on both the Turnpike and Parkway will be set at a 40% discount to the comparable commercial vehicle toll rates with the same number of axles. Bus rate changes would begin on September 13, 2020.
3. On September 13, 2020 a 36% toll increase on the Turnpike and a 27% toll increase on the Parkway are assumed. On or about January 1 of each year, beginning in 2022, a 3% toll increase is assumed to be implemented throughout the forecast period.
4. These impacts represent the estimated reduction in travel demand over the forecast period as a result of the COVID-19 pandemic. In addition, due to the COVID-19 pandemic, NJTA has temporarily implemented cashless, non-stop, tolling at all locations. The date when cash toll collection will again be possible is not known at this time, but assumed to be on June 14, 2020 for purposes of this analysis. The COVID-19 impacts shown here represent the potential loss of toll revenue for both the temporary video capture and billing of former cash customers and the reduction in total travel demand.



Ms. Donna Manuelli
May 20, 2020
Page 15

While the most up-to-date daily traffic and toll revenue data have been used in preparation of this analysis, we are still in the early stages of the COVID-19 pandemic. The models and other methodologies used to estimate impacts associated with Turnpike and Parkway improvements and toll rate changes have been successfully used for prior studies and have proven to be quite accurate. The ultimate extent and duration of local, state, and federal stay-at-home orders and social distancing guidelines as a result of COVID-19 will directly affect traffic usage on the Turnpike and Parkway. CDM Smith will continue to monitor travel patterns as the crisis continues.

Sincerely,

A handwritten signature in black ink that reads "Scott A. Allaire".

Scott A. Allaire
Vice President
CDM Smith Inc.

A handwritten signature in black ink that reads "Yogesh Patel".

Yogesh Patel, AICP
Project Manager
CDM Smith Inc.



Ms. Donna Manuelli
May 20, 2020
Page 16

Disclaimer

CDM Smith used currently accepted professional practices and procedures in the development of these traffic and revenue forecasts. However, as with any forecast, it should be understood that differences between forecasted and actual results may occur, as caused by events and circumstances beyond the control of the forecasters. In formulating the forecasts, CDM Smith reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the New Jersey Turnpike Authority (NJTA). CDM Smith also relied upon the reasonable assurances of independent parties and is not aware of any material facts that would make such information misleading.

CDM Smith made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue forecasts that must be considered as a whole; therefore, selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit of partial information extracted from this report.

All forecasts and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple agencies, including NJTA. These forecasts and projections may not be indicative of actual or future values and are therefore subject to substantial uncertainty. Future developments, economic conditions, and changes in travel behavior resulting from advances in automotive technology cannot be predicted with certainty and may affect the forecasts or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any estimate or projection contained within this report.

While CDM Smith believes that the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date of this letter, such forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of that study, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to socioeconomic and demographic forecasts, proposed residential or commercial land use development projects, and/or potential improvements to the regional transportation network.

CDM Smith is not, and has not been, a municipal advisor as defined in federal law (the Dodd Frank Bill) to NJTA and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to NJTA with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to NJTA. NJTA should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.

*

*

*